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EXAMINER

GU, YU

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/562,676	Applicant(s) TAKE, KEIJIRO	
	Examiner YU (Andy) GU	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. By way of preliminary amendment dated 12/29/2005, claims 1-23 are cancelled, claims 24-46 are added. Claims 24-46 are presented for examination.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). A certified copy has been filed with the application on 12/29/2005.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 12/29/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Specification

4. The disclosure is objected to because of the following informalities: paragraph [0005] provides explanation for Figure 2, but mistakenly refers the "*one or more IP (Internet Protocol) connectable base stations (IP-BSs)*" by item number "102". However, item 102 is not illustrated in Figure 2. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 33-35** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 33-35 each recites the limitation "the

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controller (s)". The limitation "a controller" has been recited in claim 29 and claim 32, which are parent claims for claim 33-35. Therefore the limitation "the controller(s)" is rendered indefinite as it fails point out which controller the Applicant is referring to.

6. **Claims 41-43** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 41-43 each recites the limitation "the controller (s)". The limitation "a controller" has been recited in claim 37 and claim 40, which are parent claims for claim 41-43. Therefore the limitation "the controller(s)" is rendered indefinite as it fails point out which controller the Applicant is referring to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claim 24-26, 28 and 36** rejected under 35 U.S.C. 102(b) as being anticipated by US 6292667 B1 Wallentin et al. (hereinafter Wallentin).

Regarding **claim 24**, Wallentin *discloses a paging control method*

- *executed by a paging control apparatus* (i.e. the RNC, see at least Figure 1 and 2 item 22 and the Abstract) *in a mobile network including*
 - *a core network* (see at least Figure 1 and 2 e.g. items above dash-line 20),
 - *a radio access network* (see at least Figure 1 and 2 e.g. items below dash-line 20),

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- *and a mobile communication terminal (see at least Figure 1 and 2 and the Abstract),*
- *wherein the radio access network includes a plurality of base stations (i.e. BS_{x,y} as shown in Figure 1 and 2), and a radio network controller (i.e. RNC1 as shown in Figure 1 and 2) serving as the paging control apparatus, the paging control apparatus includes at least two controllers (see at least Figure 3A) that functionally distribute communication between the core network and the base stations to control the communication, one of the controllers (see at least Figure 3A item 244) processing a paging message transmitted from the core network to the radio access network (see at least Figure 3A and column 7 lines 27-46), and wherein the mobile communication terminal performs communication with the base station via a radio interface (see at least column 3 lines 16-18),*
- *the paging control method comprising:*
 - *receiving the paging message transmitted from the core network to the radio access network (see at least column 10 lines 58-62);*
 - *judging a transmission destination of the paging message (see at least column 11 lines 4-21);*
 - *and transmitting the paging message to a controller that controls a base station at the transmission destination (see at least column 11 lines 21-26).*

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Regard **claim 25**, Wallentin discloses the limitations as shown in the rejection of claim

24. Wallentin further discloses:

- *wherein the mobile communication terminal is in a state in which connection is not established between the mobile communication terminal and any one of the radio access network and the core network, and when the mobile communication terminal is in the state in which connection is not established between the mobile communication terminal and any one of the radio access network and the core network (see at least column 2 lines 1-5, column 10 lines 40-44), the act of judging includes judging that the transmission destination of the paging message is a controller that controls any one of a predetermined base station and a base station specified in the paging message (see at least column 11 lines 17-24, and column 7 lines 5-7).*

Regarding **claim 26**, Wallentin discloses the limitations as shown in the rejection of claim **24** and **25**. Wallentin further discloses:

- *wherein there are a plurality of any one of the base stations and the controllers, and when there are the plurality of any one of the base stations and the controllers (see at least column 7 lines 48-60 and Figure 1 and 2, where Wallentin discloses a plurality of cells, belonging to a multicell area e.g. MCA A, controlled by their respective base stations), the act of transmitting includes transmitting the paging message according to multicast transmission (see at least column 11 lines 39-42, where Wallentin discloses transmitting paging*

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message to the base stations for the cells belonging to a multicell area, therefore transmitting to multiple base stations, thus a multicast transmission).

Regarding **claim 28**, Wallentin discloses *a paging control apparatus in a mobile network that includes*

- *a core network* (see at least Figure 1 and 2 e.g. items above dash-line 20),
- *a radio access network* (see at least Figure 1 and 2 e.g. items below dash-line 20),
- *and a mobile communication terminal* (see at least Figure 1 and 2 and the Abstract,
- *wherein the radio access network includes*
 - *a plurality of base stations* (i.e. BS_{x,y} as shown in Figure 1 and 2) *and a radio network controller* (i.e. RNC1 as shown in Figure 1 and 2),
 - *the radio network controller includes at least two controllers* (i.e. items 240-248 as shown in Figure 3A) *that functionally distribute communication between the core network and the base stations to control the communication,*
 - *one of the controllers being used as the paging control apparatus* (i.e. RNC control unit), *and wherein the mobile communication terminal is configured to perform communication with the base station via a radio interface* (see at least column 3 lines 16-18), *the paging control apparatus comprising: a processing unit configured to receive a paging message transmitted from the core network to the radio access network, and to*

transmit the paging message to a predetermined mobile communication terminal (see at least Figure 3A and column 7 lines 27-46).

Regarding **claim 36**, Wallentin discloses *a radio access network comprising:*

- *a plurality of base stations configured to perform communication with a mobile communication terminal via a radio interface (i.e. BS_{x,y} as shown in Figure 1 and 2, column 3 lines 16-18);*
- *and a radio network controller (i.e. RNC1 as shown in Figure 1 and 2) that is connected to a core network and that includes at least two controllers (i.e. items 240-248 as shown in Figure 3A) that functionally distribute communication between the core network and the base station, and that is configured to control the communication, wherein at least one of the controllers is a paging control apparatus (i.e. RNC) including a processing unit configured to process a paging message transmitted from the core network to the radio access network (see at least Figure 3A and column 7 lines 27-46).*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 27, 29-25 and 37-46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallentin in view of US 6792278 B1 Ahmavaara et al (hereinafter Ahmavaara).

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Regarding **claim 27**, Wallentin discloses the limitations as shown in the rejection of claim **24**. Wallentin does not expressly disclose the limitation that *wherein the mobile communication terminal is in a state in which connection is established between the mobile communication terminal and any one of the radio access network and the core network*. Wallentin is further silent as to *when the mobile communication terminal is in the state in which connection is established between the mobile communication terminal and any one of the radio access network and the core network, the act of judging includes judging that the transmission destination of the paging message is a controller that controls the connection*. However, in a related field of endeavor, Ahmavaara discloses the scenario *wherein* a mobile communication terminal is paged while it already has established a connection with the network, and the paging of the mobile is carried out by judging information stored in a paging database (see at least Ahmavaara column 1 lines 32-48, column 4 lines 47-52 and column 5 lines 7-12, 23-35). It would have been obvious to a person of ordinary skill in the art to modify Wallentin in view of Ahmavaara in order to efficiently enable multiple signal connections as discussed by Wallentin (see at least Ahmavaara column 2 lines 36-67).

Regarding **claim 29**, Wallentin discloses the limitations as shown in the rejection of claim **28**. Wallentin does not expressly disclose the limitations of claim 28. However, in a related field of endeavor, Ahmavaara discloses

- *a connection information registering unit (i.e. the paging database, see at least Ahmavaara column 2 lines 19-25, column 5 lines 1-5) configured to register signal connection information including a first indication of whether a first*

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connection (e.g. under the first IMSI) between the mobile communication terminal and the radio access network exists, a second indication (e.g. under the second IMSI) of whether a second connection between the mobile communication terminal and the core network exists (see at least Ahmavaara column 1 lines 49-53, column 2 lines 14-29),

- *and a controller (i.e. RNC) configured to control any one of the first connection and the second connection, wherein the paging message is a paging message sent to a mobile communication terminal having any one of the first connection and the second connection (see at least Ahmavaara column 4 lines 48-53),*
- *and when the paging message is the paging message sent to the mobile communication terminal having any one of the first connection and the second connection, the processing unit refers to the signal connection information to specify any one of a controller and a base station that controls the connection, and transmits the paging message to any one of the controller and the base station (see at least Ahmavaara column 5 lines 27-36).*

It would have been obvious to a person of ordinary skill in the art to modify Wallentin in view of Ahmavaara in order to efficiently enable multiple signal connections as discussed by Wallentin (see at least Ahmavaara column 2 lines 36-67).

Regarding **claim 30**, Wallentin and Ahmavaara discloses the limitations as shown in the rejection of claim **28** and **29**. Wallentin is silent as to the limitations of **claim 30**.

However, in a related field of endeavor, Ahmavaara discloses *wherein the signal connection information includes*

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- *first connection information including*
 - *the first connection, a first identifier (i.e. IMSI1, which is associated with the mobile communication terminal, and the association is temporarily stored in the paging database, see at least Ahmavaara column 2 lines 36-40) that temporarily identifies the mobile communication terminal,*
 - *and a first controller (i.e. BTS1) configured to control the first connection (see at least Ahmavaara column 4 lines 48-53),*
- *and second connection information that associates the first identifier with a second identifier (i.e. IMSI2) having a number form peculiar to the mobile communication terminal,*
- *if the mobile communication terminal sets the second connection, and upon receiving a paging message from the core network, the processing unit refers to the signal connection information to specify the first controller (i.e. BST1), which controls the first connection associated with the second identifier included in the paging message, and transmits the paging message to the first controller (see at least Ahmavaara column 5 lines 23-36).*

It would have been obvious to a person of ordinary skill in the art to modify Wallentin in view of Ahmavaara in order to efficiently enable multiple signal connections as discussed by Wallentin (see at least Ahmavaara column 2 lines 36-67).

Regarding **claim 31**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **28, 29** and **30**. Wallentin is silent as to the limitations of claim 31, and Ahmavaara does not expressly disclose that a third identifier, and consequently is silent

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as to the limitation *wherein the second connection information further includes a third identifier having a number form peculiar to the core network and associated with the first identifier and the second identifier, when the core network notifies the mobile communication terminal of the third identifier, and upon receiving a paging message from the core network, the processing unit refers to the signal connection information to specify the first controller, which controls the first connection associated with the third identifier included in the paging message, and transmits the paging message to the first controller*. Ahmavaara however does disclose that a mobile station may have several IMSI for multiple connections (see at least Ahmavaara column 1 lines 44-53), and therefore, it would have been obvious to a person of ordinary skill in the art to include a third IMSI (which contains information related to the operator's network as one of ordinary skill knows, thus peculiar to the core network), and to page the mobile terminal in the manner disclosed by Ahmavaara and Wallentin in order to support 3 connections. Regard **claim 32**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **28** and **29**. Wallentin further discloses:

- *wherein the paging message is a paging message sent to a mobile communication terminal not having connection, and when the paging message is the paging message to the mobile communication terminal not having connection (see at least column 2 lines 1-5, column 10 lines 40-44), the processing unit transmits the paging message to a controller that controls any one of a predetermined base station and a base station specified in the paging message (see at least column 11 lines 17-24, and column 7 lines 5-7).*

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Regard **claim 33**, Wallentin and Ahmavaara discloses the limitations as shown in the rejection of claim **28, 29** and **32**. Wallentin further discloses:

- *wherein a plurality of any of the controllers and the base stations are specified (see at least column 7 lines 48-67), and when the plurality of any of the controllers and the base stations are specified, the processing unit copies the paging message, and transmits copied paging message to all the controllers and all the base stations (see at last Figure 5 item 5-3 through 5-6 and corresponding text).*

Regard **claim 34**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **28, 29** and **32**. Wallentin further discloses:

- *wherein a plurality of any one of the controllers and the base stations are specified, and when a plurality of any one of the controllers and the base stations are specified, the processing unit transmits the paging message to any of the controllers and the base stations according to **multicast** transmission (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to the base stations for the cells belonging to a multicell area, therefore transmitting to multiple base stations, thus a multicast transmission).*

Regard **claim 35**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **28, 29** and **32**. Wallentin further discloses:

- *wherein a call area is registered in advance (see at least column 7 lines 48-67, as shown in Table 1, in MCA A, there are 6 predetermined call area i.e. cell area)*

- *the controller further includes*
 - *a second controller (i.e. RNC2) that controls a base station within a call area of the mobile communication terminal decided by the core network (see at least column 11 lines 39-56),*
 - *and a third controller that controls data transfer to the base station controlled by the second controller (i.e. see Figure 3B item 248),*
 - *and if the controller further includes the second controller and the third controller, upon receiving a paging message from the core network, the processing unit transmits the paging message to any one of the second controller and the third controller using a multicast address of any one of the second controller and the third controller associated with the call area (i.e. cell areas which are grouped in advance as shown in Table 1, see at least column 7 lines 48-67) registered in advance (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to other RNCs e.g. RNC2 for cells controlled under RNC2, therefore transmission is addressed to multiple base stations, thus a multicast address).*

Regarding **claim 37**, Wallentin discloses the limitations as shown in the rejection of claim **36**. Wallentin does not expressly disclose the limitations of claim 37. However, in a related field of endeavor, Ahmavaara discloses *a connection information registering unit* (i.e. the paging database, see at least Ahmavaara column 2 lines 19-25, column 5 lines 1-5) *configured to register signal connection information including*

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- *a first indication of whether a first connection (e.g. under the first IMSI) between the mobile communication terminal and the radio access network exists, a second indication of whether a second connection (e.g. under the second IMSI) between the mobile communication terminal and the core network exists,*
- *and a controller (i.e. RNC) configured to control any one of the first connection and the second connection (see at least Ahmavaara column 4 lines 48-53),*
- *the paging message is a paging message sent to a mobile communication terminal having any one of the first connection and the second connection, and when the paging message is the paging message sent to the mobile communication terminal having any one of the first connection and the second connection, the processing unit refers to the signal connection information to specify a controller that controls the connection, and transmits the paging message to the controller (see at least Ahmavaara column 5 lines 27-36).*

It would have been obvious to a person of ordinary skill in the art to modify Wallentin in view of Ahmavaara in order to efficiently enable multiple signal connections as discussed by Wallentin (see at least Ahmavaara column 2 lines 36-67).

Regarding **claim 38**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36** and **37**. Wallentin is silent as to the limitations of **claim 30**.

However, in a related field of endeavor, Ahmavaara discloses *wherein the signal connection information includes*

- *first connection information including the first connection, a first identifier (i.e. IMSI1, which is associated with the mobile communication terminal, and the*

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association is temporarily stored in the paging database, see at least Ahmavaara column 2 lines 36-40) *that temporarily identifies the mobile communication terminal, and a first controller configured to control the first connection,*

- *and second connection information that associates the first identifier with a second identifier (i.e. IMSI2) having a number form peculiar to the mobile communication terminal,*
- *if the mobile communication terminal sets the second connection, and upon receiving a paging message from the core network, the processing unit of the paging control apparatus refers to the signal connection information to specify the first controller (e.g. BTS1), which controls the first connection associated with the second identifier included in the paging message, and transmits the paging message to the first controller (see at least Ahmavaara column 5 lines 23-36).*

It would have been obvious to a person of ordinary skill in the art to modify Wallentin in view of Ahmavaara in order to efficiently enable multiple signal connections as discussed by Wallentin (see at least Ahmavaara column 2 lines 36-67).

Regarding **claim 39**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36**, **37** and **38**. Wallentin is silent as to the limitations of claim 31, and Ahmavaara does not expressly disclose that a third identifier, and consequently is silent as to the limitation *wherein the second connection information further includes a third identifier having a number form peculiar to the core network and associated with the first identifier and the second identifier, when the core network notifies the mobile communication terminal of the third identifier, and upon receiving a paging message*

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from the core network, the processing unit of the paging control apparatus refers to the signal connection information to specify the first controller, which controls the first connection associated with the third identifier included in the paging message, and transmits the paging message to the first controller. Ahmavaara however does disclose that a mobile station may have several IMSI for multiple connections (see at least Ahmavaara column 1 lines 44-53), and therefore, it would have been obvious to a person of ordinary skill in the art to include a third IMSI (which contains information related to the operator's network as one of ordinary skill knows, thus peculiar to the core network), and to page the mobile terminal in the manner disclosed by Ahmavaara and Wallentin in order to support 3 connections.

Regard **claim 40**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36** and **37**. Wallentin further discloses:

- *wherein the paging message is a paging message sent to a mobile communication terminal not having connection, and when the paging message is the paging message sent to the mobile communication terminal not having connection (see at least column 2 lines 1-5, column 10 lines 40-44), the processing unit of the paging control apparatus transmits the paging message to a controller that controls any one of a predetermined base station and a base station specified in the paging message (see at least column 11 lines 17-24, and column 7 lines 5-7).*

Regard **claim 41**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36**, **37** and **40**. Wallentin further discloses:

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- *wherein a plurality of the controllers are specified, and when the plurality of the controllers are specified (see at least column 7 lines 48-67), the processing unit of the paging control apparatus copies the paging message, and transmits copied paging message to all the controllers and all the base stations (see at last Figure 5 item 5-3 through 5-6 and corresponding text).*

Regard **claim 42**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36**, **37** and **40**. Wallentin further discloses:

- *wherein a plurality of the controllers are specified, and when the plurality of the controllers are specified, the processing unit of the paging control apparatus transmits the paging message to any one of the controllers and the base stations according to multicast transmission (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to the base stations for the cells belonging to a multicell area, therefore transmitting to multiple base stations, thus a multicast transmission).*

Regard **claim 43**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36**, **37** and **40**. Wallentin further discloses:

- *wherein a call area(see at least column 7 lines 48-67, as shown in Table 1, in MCA A, there are 6 predetermined call area i.e. cell area) is registered in advance,*
- *the controller includes*

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- *a second controller (i.e. RNC2) that controls a base station within a call area of the mobile communication terminal decided by the core network(see at least column 11 lines 39-56),*
- *and a third controller (i.e. see Figure 3B item 248) that controls data transfer to the base station controlled by the second controller,*
- *and if the controller further includes the second controller and the third controller, upon receiving a paging message from the core network, the processing unit of the paging control apparatus transmits the paging message to any one of the second controller and the third controller using a multicast address of any one of the second controller and the third controller associated with the call area (i.e. cell areas which are grouped in advanced as shown in Table 1, see at least column 7 lines 48-67) registered in advance (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to other RNCs e.g. RNC2 for cells controlled under RNC2, therefore transmission is addressed to multiple base stations, thus a multicast address).*

Regard **claim 44**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36, 37, 40** and **43**. Wallentin further discloses:

- *wherein a multicast address (i.e. see at least column 7 lines 46-67, as shown in Table 1, there's a list of other RNCs e.g. RNC2 associated with RNC1) of the third controller (i.e. see at least Figure 3B item 248) associated with the second*

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controller (i.e. RNCs e.g. RNC2 as shown in Table 1, see at least column 7 lines 48-67) is registered in advance, and upon receiving the paging message from the paging control apparatus, the second controller transmits the paging message to the third controller using the multicast address (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to other RNCs e.g. RNC2 for cells controlled under RNC2, therefore transmission is addressed to multiple base stations, thus a multicast address).

Regard **claim 45**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36, 37, 40, 43** and **44**. Wallentin further discloses:

- *wherein a multicast address including all base stations controlled by the third controller (see at least column 9 lines 1-15, i.e. list of cells in a MCA controlled by RNC2) is registered in advance, and upon receiving the paging message from the second controller, the third controller transmits the paging message to the base station using the multicast address (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to the base stations for the cells belonging to a multicell area, therefore the transmission is addressed to multiple base stations, thus a multicast address).*

Regard **claim 46**, Wallentin and Ahmavaara disclose the limitations as shown in the rejection of claim **36, 37, 40, 43**. Wallentin further discloses:

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- *wherein a multicast address including all base stations controlled (see at least column 9 lines 1-15, i.e. list of cells in a MCA controlled by RNC2) by the third controllers is registered in advance, and upon receiving the paging message from the second controller, the third controller transmits the paging message to the base station using the multicast address (see at least column 7 lines 48-67, and Figure 5 item 5-3 through 5-6 and column 11 lines 39-56, where Wallentin discloses transmitting paging message to the base stations for the cells belonging to a multicell area, therefore the transmission is addressed to multiple base stations, thus a multicast address).*

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU (Andy) GU whose telephone number is (571)270-7233. The examiner can normally be reached on Mon-Thur 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 5712727922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/YU (Andy) GU/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617